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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appl.No.: 09/649,390  
Applicant: Hosur et al  
Filed: August 8, 2000  
TC/AU: 2631  
Examiner: Bocure

Confirmation No.: 7193

Docket: TI-29602  
Cust.No.: 23494

APPELLANTS' BRIEF

Commissioner for Patents  
P.O.Box 1450  
Alexandria VA 22313-1450

Sir:

The attached sheets contain the Rule 192(c) items of appellants' brief.  
The Commissioner is hereby authorized to charge the fee for filing a brief in support of the appeal plus any other necessary fees to the deposit account of Texas Instruments Incorporated, account No. 20-0668. A fee transmittal sheet is enclosed.

Respectfully submitted,



Carlton H. Hoel  
Reg. No. 29,934  
Texas Instruments Incorporated  
PO Box 655474, M/S 3999  
Dallas, Texas 75265  
972.917.4365

Rule 192(c)(1) Real party of interest

Texas Instruments Incorporated owns the application.

Rule 192(c)(2) Related appeals and interferences

There are no related dispositive appeals or interferences.

Rule 192(c)(3) Status of claims

Claims 1-11 are pending in the application with claims 7-11 withdrawn from consideration, claims 1-2 and 6 allowed, and claims 3-5 finally rejected. This appeal involves the finally rejected claims.

Rule 192(c)(4) Status of amendments

There is no amendment after final rejection.

Rule 192(c)(5) Summary of the invention

The invention provides a method of decoding in wireless CDMA communication by maximizing linear combinations of despreadings of received signals of the type of linear combinations of synchronization codes which form comma-free code (CFC) codewords. Application pages 18-20 describe a preferred embodiment which decodes linear combinations of synchronization codes as listed in Figure 7a.

Rule 192(c)(6) Issues

The issue presented on appeal is:  
whether claims 3-5 are indefinite as being omnibus claims.

Rule 192(c)(7) Grouping of the claims

The claims are treated as a single group.

Rule 192(c)(8) Argument

Claims 3-5 were rejected as indefinite; the Examiner asserted that the claims are omnibus claims.

Appellants reply that claims 3-5 depend from claim 2 and specify synchronization code combinations as listed in Figures 1b, 6, and 7a, respectively. These three figures are essentially short lists of possible synchronization code combinations and are not indefinite. Consequently, claims 3-5 are not omnibus claims.

Rule 192(c)(9) Appendix

Claim 1 (allowed) A method for decoding received sums of QPSK-modulated spreading codes corresponding to elements of CFC codewords, comprising:

- (a) despreading received sums of QPSK-modulated spreading codes with each of said spreading codes;
- (b) forming linear combinations with coefficients  $\pm 1$  and  $\pm j$  of the results of step (a), said combinations corresponding to possible sums as elements of CFC codewords;
- (c) finding the maximum of said combinations of step (b);
- (d) determining a codeword and cyclic shift from the results of step (c).

Claim 2 (allowed) The method of claim 1, wherein:

- (a) said sums of step (a) of claim 1 are each sums of three QPSK-modulated spreading codes.

Claim 3 (finally rejected) The method of claim 2, wherein:

- (a) said sums of step (a) of claim 2 are selected from the group consisting of the sums indicated in slot columns of Figure 1b wherein  $C_0, C_1, \dots, C_{11}$  represent said spreading codes.

Claim 4 (finally rejected) The method of claim 2, wherein:

- (a) said sums of step (a) of claim 2 are selected from the group consisting of the sums indicated in the slot columns of Figure 6 wherein  $C_0, C_1, \dots, C_5$  represent said spreading codes..

Claim 5 (finally rejected) The method of claim 2, wherein:

- (a) said sums of step (a) of claim 2 are selected from the group consisting of the sums indicated in the slot columns of Figure 7a wherein  $C_0, C_1, \dots, C_{15}$  represent said spreading codes..

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From: Carlton H. Hoel  
Texas Instruments Incorporated  
Facsimile: 972-917-4418  
Phone: 972-917-4365

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Srinath Hosur et al.  
Serial No: 09/649,390  
Filed: 8/28/2000  
Art Unit: 2631  
Examiner: Bocure  
Docket No.: TI-29602  
Conf. No.: 7193  
Customer No.: 23494

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NAME OF INVENTOR(S): Srinath Hosur et al.	
RECEIPT DATE & SERIAL NO.: Serial No.: 09/649,390	
TITLE OF INVENTION: Receiver Algorithm for The Length 4 CFC Filing Date: 8/28/2000	
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Texas Instruments Incorporated  
PO Box 655474, M/S 3999  
Dallas, TX 75265